

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1-6, 8-14, 24, 26, and 29-32 have been amended, and claims 42-44 have been added. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-6, 8-16, 18-33, and 42-44 are pending and under consideration. Claim 7 has been cancelled. Claims 17 and 35 were previously cancelled, and claims 34, and 36-41 remain withdrawn.

For the purposes of Applicants' response, we have assumed that the Office Action detailed all outstanding objections and rejections for all pending claims and represents a complete action as per MPEP 707.07.

REJECTION UNDER 35 U.S.C. §112:

In the Office Action, at page 2, third paragraph, the Examiner rejected claims 1-16 and 18-33 under 35 U.S.C. §112, second paragraph, for the reasons set forth therein. The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration.

Applicants respectfully submit that the claim amendments overcome the Examiner's rejection.

REJECTION UNDER 35 U.S.C. §102:

In the Office Action, at page 3, last paragraph, the Examiner rejected claims 1 and 7 under 35 U.S.C. §102 (b) as being anticipated by McEwen et al. (U.S. 3,980,014 – hereinafter McEwen). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration.

In the Office Action, at page 4, first paragraph, the Examiner rejected claim 30 under 35 U.S.C. §102 (b) as being anticipated by Bendzick (U.S. 5,391,069 – hereinafter Bendzick). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration.

Claim 7 has been cancelled.

Amended claim 1 recites: "...filtering a grinding sludge to provide a concentrated sludge, the grinding sludge resulting from machining of a hardened steel material and containing an oil-based coolant; in a first compressing operation, pre-compressing the concentrated sludge in a first press unit; and in a second compressing operation, compressing the pre-compressed sludge in a second press unit by squeezing to provide the compressed solid material."

McEwen discloses only a single compression chamber 20 used to compress the liquid and solid particles, such as sludge, and/or swarf, in a single compressing operation. (See McEwen, at col. 1, line 49 – col. 2, line 44.)

In contrast, the subject application discloses and claims a first compressing operation in a first press unit and a second compressing operation in a second press unit. Such a method is effective to allow compressing conditions to be properly set for each stage of compression, so that quantity of the coolant contained in the grinding sludge can be efficiently and effectively reduced. Additionally, first and second press unit can be run in parallel, increasing the efficiency of providing the compressed solid material.

Applicants respectfully submit that McEwen neither discloses nor suggests "...filtering a grinding sludge to provide a concentrated sludge, the grinding sludge resulting from machining of a hardened steel material and containing an oil-based coolant; in a first compressing operation, pre-compressing the concentrated sludge in a first press unit; and in a second compressing operation, compressing the pre-compressed sludge in a second press unit by squeezing to provide the compressed solid material."

Thus, Applicants respectfully submit that claim 1 patentably distinguishes over the cited art.

Amended claim 30 recites: "...wherein the press controller applies the pressure to squeeze up to approximately 400 MPa."

The cylinder 46 of the device disclosed in Bendzick has a high pressure limit of approximately 42,000 psi. (See Bendzick, at col. 7, lines 1-9). Thus, Applicants respectfully submit that Bendzick neither discloses nor suggests a device in which the press controller applies the pressure to squeeze up to approximately 400 MPa (approximately 58,000 psi).

Further, claim 30 depends from independent claim 24, which recites first and second press units coupled by a passage, in which a grinding sludge is compressed. Bendzick discloses only a single cylinder 46 in which the metal is compacted. It should be noted that independent claim 24 was not rejected on the basis of the cited art.

Applicants respectfully submit that claim 30 patentably distinguishes over the cited art.

REJECTION UNDER 35 U.S.C. §103:

In the Office Action, at page 4, third paragraph, the Examiner rejected claims 4 and 6 under 35 U.S.C. §103 (a) as being unpatentable over McEwen. The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration.

In the Office Action, at page 5, second paragraph, the Examiner rejected claims 31 and 32 under 35 U.S.C. §103 (a) as being unpatentable over Bendzick. The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration.

Claim 4 recites: "...wherein the filtering comprises: pressurizing and guiding the grinding sludge towards a filtering belt, which filters coolant from the grinding sludge; and subjecting the grinding sludge to compressed air, to further filter coolant from the grinding sludge.

McEwen, neither discloses nor suggests subjecting the sludge on the wedge wire filter screen to compressed air, to further filter coolant from the sludge.

Applicants respectfully submit that claims 4 and 6, which depend from independent claim 1, should be allowable for at least the same reasons as claim 1, as well as for the additional features recited therein.

Further, Applicants respectfully submit that claims 31 and 32, which depend from independent claim 24, should be allowable for at least the same reasons as claim 24, as well as for the additional features recited therein. It should be noted that independent claim 24 has no rejection on the basis of the cited art.

NEW CLAIMS

Applicants respectfully submit that for at least similar reasons as those stated in the section regarding the rejection under 35 U.S.C. §102, new claim 42, which depends from independent claim 1, and new claims 43-44 patentably distinguish over the cited art and should be allowable.

CONCLUSION:

In accordance with the foregoing, Applicants respectfully submit that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the cited art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.


Please note that a new Power of Attorney and Revocation of Prior Powers of Attorney (copies of which are provided for the Examiner's convenience) was filed for this case on November 19, 2003. Therefore, please address all communications to Staas & Halsey LLP, USPTO customer No. 21171, at the address indicated below.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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